

KO-Validated Anti-Caspase 6 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI2419

Product Information

Application	WB, FC
Primary Accession	P55212
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB465
Calculated MW	33310
Gene Name	CASP6
Aliases	CASP6; Caspase 6; CSP-6; MCH2; Caspase-6; Caspase 6, Apoptosis-Related Cysteine Peptidase; Caspase 6, Apoptosis-Related Cysteine Protease; Mammalian Ced-3 Homologue 2; EC 3.4.22.59; Apoptotic Protease MCH-2; Apoptotic Protease Mch-2; CASPASE-6; EC 3.4.22; CASP-6
Immunogen	A synthesized peptide derived from human Caspase-6

Additional Information

Gene ID	839
Other Names	Caspase-6, CASP-6, CSP-6, 3.4.22.59, Apoptotic protease Mch-2, Caspase-6 subunit p18, Caspase-6 subunit p20, Caspase-6 subunit p11, Caspase-6 subunit p10, CASP6 (HGNC:1507)

Protein Information

Name	CASP6 (HGNC:1507)
Function	Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed: 19133298 , PubMed: 22858542 , PubMed: 27032039 , PubMed: 28864531 , PubMed: 30420425 , PubMed: 32298652 , PubMed: 8663580). Acts as a non-canonical executioner caspase during apoptosis: localizes in the nucleus and cleaves the nuclear structural protein NUMA1 and lamin A/LMNA thereby inducing nuclear shrinkage and fragmentation (PubMed: 11953316 , PubMed: 17401638 , PubMed: 8663580 , PubMed: 9463409). Lamin-A/LMNA cleavage is required for chromatin condensation and nuclear disassembly during apoptotic execution (PubMed: 11953316). Acts as a regulator of liver damage by promoting hepatocyte apoptosis: in absence of phosphorylation by AMP-activated protein kinase (AMPK), catalyzes cleavage of BID, leading to cytochrome c release, thereby participating in nonalcoholic steatohepatitis (PubMed: 32029622). Cleaves PARK7/DJ-1 in cells undergoing apoptosis (By similarity). Involved in intrinsic apoptosis by mediating cleavage of RIPK1 (PubMed: 22858542). Furthermore, cleaves many transcription factors such as

NF-kappa-B and cAMP response element-binding protein/CREBBP (PubMed:[10559921](#), PubMed:[14657026](#)). Cleaves phospholipid scramblase proteins XKR4 and XKR9 (By similarity). In addition to apoptosis, involved in different forms of programmed cell death (PubMed:[32298652](#)). Plays an essential role in defense against viruses by acting as a central mediator of the ZBP1-mediated pyroptosis, apoptosis, and necroptosis (PANoptosis), independently of its cysteine protease activity (PubMed:[32298652](#)). PANoptosis is a unique inflammatory programmed cell death, which provides a molecular scaffold that allows the interactions and activation of machinery required for inflammasome/pyroptosis, apoptosis and necroptosis (PubMed:[32298652](#)). Mechanistically, interacts with RIPK3 and enhances the interaction between RIPK3 and ZBP1, leading to ZBP1-mediated inflammasome activation and cell death (PubMed:[32298652](#)). Plays an essential role in axon degeneration during axon pruning which is the remodeling of axons during neurogenesis but not apoptosis (By similarity). Regulates B-cell programs both during early development and after antigen stimulation (By similarity).

Cellular Location

Cytoplasm. Nucleus

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